

ABSTRACT

A solar heat collector constructed of non-conducting laminated and corrugated material to form a collector container with a bottom panel, a plurality of end panels that include a plurality of attached plenums with air inlet and exiting apertures and distribution apertures for air flow over and under an absorber plate. A plurality of side panels include longitudinally folded supports for an absorber plate held in place by bonding attachment to longitudinal side and underlying center supports extending upward from the bottom panel. The conductive absorber plate is positioned vertically to allow air flow space between the plate and a cover and air flow space below the plate parallel to the centerline. In another embodiment, end and side panels including the end plenums and side supports are co-extensive panels of a common multi-panel blank that is folded to form the container bottom, ends and sides. After assembly of heat collecting parts, the container can be overwrapped in film for waterproofing with air connections added through punctures in the film at field assembly of a collector array. In another embodiment, a third tertiary panel extension from one or both sides of the secondary side panel includes score lines for a folded center support underneath the absorber.